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Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Office of the Secretary Of Defense										Date: February 2018		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 0603851D8Z I Environmental Security Technology Certification Program							
COST (\$ in Millions)	Prior Years ⁽⁺⁾	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	320.404	46.440	54.583	40.016	-	40.016	67.162	65.077	59.333	60.707	Continuing	Continuing
514: Environmental Security Technology Certification Program	314.404	46.440	54.583	40.016	-	40.016	67.162	65.077	59.333	60.707	Continuing	Continuing

⁽⁺⁾ The sum of all Prior Years is \$6.000 million less than the represented total due to several projects ending

Note

The FY2019 funding request was reduced by \$17 million to account for the availability of prior year execution balances.

A. Mission Description and Budget Item Justification

(U) The Environmental Security Technology Certification Program (ESTCP) demonstrates and validates promising and innovative environmental and energy technologies that target DoD's most urgent needs. Technologies selected are projected to provide a return on the investment through cost savings and improved efficiencies. The program responds to: (1) Congressional concern over the slow pace of remediation of environmentally polluted sites on military installations, (2) Congressional direction to conduct demonstrations specifically focused on emerging new technologies, and (3) the need to improve defense readiness by reducing the drain on the Department's operation and maintenance dollars caused by environmental restoration, waste management, and the cost of energy. Preference for demonstrations is given to technologies that have successfully completed all necessary research and development objectives, and address the highest priority DoD requirements.

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	52.491	54.583	58.647	-	58.647
Current President's Budget	46.440	54.583	40.016	-	40.016
Total Adjustments	-6.051	0.000	-18.631	-	-18.631
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-6.000	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• FFRDC Transfer	-0.051	-	0.000	-	0.000
• Economic Adjustment	-	-	-0.391	-	-0.391
• Realignment to O&M for REPI Offset	-	-	-0.611	-	-0.611

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• Other Adjustments			-	-	-17.629	-	-17.629
Change Summary Explanation							
Economic Adjustment (EA-008) is the comptroller budget decision that reflected OMB directed inflation adjustments. REPI Offset is an OMB decision that EI&E's REPI program be funded at a higher level.							
Funds rephase from FY19 to FY20 and FY21 to aid in increasing program execution rates closer to the DoD benchmarks.							

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Office of the Secretary Of Defense										Date: February 2018		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0603851D8Z / Environmental Security Technology Certification Program				Project (Number/Name) 514 / Environmental Security Technology Certification Program			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
514: Environmental Security Technology Certification Program	314.404	46.440	54.583	40.016	-	40.016	67.162	65.077	59.333	60.707	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

(U) The Environmental Security Technology Certification Program (ESTCP) demonstrates and validates promising and innovative environmental and energy technologies that target DoD's most urgent needs. Technologies selected are projected to provide a return on the investment through cost savings and improved efficiencies. The program responds to: (1) Congressional concern over the slow pace of remediation of environmentally polluted sites on military installations, (2) Congressional direction to conduct demonstrations specifically focused on emerging new technologies, and (3) the need to improve defense readiness by reducing the drain on the Department's operation and maintenance dollars caused by environmental restoration, waste management, and the cost of energy. Preference for demonstrations is given to technologies that have successfully completed all necessary research and development objectives, and address the highest priority DoD requirements.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2017	FY 2018	FY 2019
Title: Environmental Technology Demonstration/Validation	21.196	32.223	24.045
Description: Funds are programmed for investments in projects that address priority DoD environmental requirements. The focus of the program is on live site unexploded ordnance (UXO) in the underwater environment, addressing emerging and recalcitrant cleanup issues, range sustainment technologies, and reducing life cycle costs of DoD weapon systems by eliminating hazardous materials. Accomplishments/plans are described for each FY below.			
FY 2018 Plans: Funds are planned for continued investment in projects that address priority DoD environmental requirements and new Investments in technology for the most challenging remaining groundwater restoration sites, scale up demonstrations for Underwater Unexploded Ordnance, and demonstrations of environmentally benign surface engineering technology at larger scales.			
FY 2019 Plans: New investments in detection, quantification and remediation of per- and polyfluorinated substances, large-scale demonstration of low-frequency acoustic systems for underwater UXO detection and classification, monitoring technologies to facilitate the management of threatened and endangered species, and surface preparation for corrosion control.			
FY 2018 to FY 2019 Increase/Decrease Statement:			

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018
Decrease reflects rephrasing of resources due to execution delays.			
Title: Energy Technology Demonstration/Validation Description: Funds are programmed for investments in energy projects that constitute the Installation Energy Test Bed Initiative. This initiative responds to Congressional direction for the Department to increase energy efficiency, reduce installation energy intensity, increase the use of renewable energy, and improve energy security. Emerging energy technologies offer DoD a cost effective opportunity to meet these requirements on its installations while reducing energy and operational costs. The DoD test bed program validates and tests the operational cost and performance of innovative energy technologies in a real-world integrated building environment so as to reduce risk, overcome the barriers to deployment, and facilitate wide-scale deployment. The test bed program exploits the Department's existing built infrastructure to evaluate energy efficiency and renewable energy technologies under the varied climatic conditions and building types DoD manages. The test bed's key elements are: 1) competitive selection of new technologies, 2) systematic and consistent evaluation to determine performance, operational readiness and life cycle costs, and 3) development of guidance and design information for future deployment across installations. FY 2018 Plans: Funds are planned to continue investments in energy and water projects that constitute the Installation Energy Test Bed Initiative. FY 2019 Plans: Demonstration in FY-19 will continue the emphasis on cyber-security as it relates to installation energy savings and security. Reaping the advantages of modern energy monitoring tools has proven difficult for the DoD because of the need to limit access to base IT networks. ESTCP continues to demonstrate technologies and monitoring schemes that are able to obtain Authority-to-Operate on DoD networks. FY 2018 to FY 2019 Increase/Decrease Statement: Decrease reflects rephrasing of resources due to execution delays.		25.244	22.360
Accomplishments/Planned Programs Subtotals		46.440	54.583
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy ESTCP solicits proposals from all DoD organizations, other Federal Agencies, and the commercial sector. Projects are selected based on an annual competitive process through reviews by multi-agency panels.			

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E. Performance Metrics <p>Performance in this program is monitored at two levels. At the lowest level, each individual project is measured against technical and financial milestones on a quarterly and annual basis. At a program-wide level, progress is measured against DoD's environmental requirements and the demonstration and transition of technologies that address these requirements.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Office of the Secretary Of Defense												Date: February 2018			
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Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Support Contract	C/IDDQ	Noblis : Falls Church, VA	14.426	2.425		2.380		2.380		-		2.380	Continuing	Continuing	-
Subtotal			14.426	2.425		2.380		2.380		-		2.380	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Energy and Water	C/Various	Various : Various	131.372	17.981		23.743		15.971		-		15.971	Continuing	Continuing	-
Weapons Systems and Platforms	C/Various	Various : Various	47.280	8.011		9.226		8.224		-		8.224	Continuing	Continuing	-
Munitions Response	C/Various	Various : Various	33.378	4.005		5.300		2.468		-		2.468	Continuing	Continuing	-
Environmental Restoration	C/Various	Various : Various	57.420	9.012		10.051		8.343		-		8.343	Continuing	Continuing	-
Resource Conservation and Resiliency	C/Various	Various : Various	30.528	5.006		3.883		2.630		-		2.630	Continuing	Continuing	-
Subtotal			299.978	44.015		52.203		37.636		-		37.636	Continuing	Continuing	N/A
Project Cost Totals			314.404	46.440		54.583		40.016		-		40.016	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Office of the Secretary Of Defense **Date:** February 2018

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603851D8Z / Environmental Security Technology Certification Program	Project (Number/Name) 514 / Environmental Security Technology Certification Program
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ID	Task Name	Start	Finish	2018				2019				2020	
				Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2
1	FY-18 In-Progress Reviews	09/01/18	11/30/18										
2	Develop FY-19 Program	01/01/18	09/30/18										
3	FY-19 In-Progress Reviews	02/01/19	11/30/19										
4	Develop FY-20 Program	01/01/19	09/30/19										

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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Office of the Secretary Of Defense			Date: February 2018
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603851D8Z / <i>Environmental Security Technology Certification Program</i>	Project (Number/Name) 514 / <i>Environmental Security Technology Certification Program</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>In Progress Reviews</i>				
FY 2018 In Progress Reviews	2	2018	1	2019
FY 2019 In Progress Reviews	2	2019	1	2020
<i>Develop Program</i>				
Develop FY 2019 Program	2	2018	4	2018
Develop FY 2020 Program	2	2019	4	2019